Regional Integrated Sciences and Assessments (RISA)

FY 2007 Information Sheet

Program methodology and objectives

The Regional Integrated Sciences and Assessments (RISA) program supports integrated, place-based research across a range of social, natural, and physical science disciplines to expand decision-makers' options in the face of climate change and variability at the regional level. It does this in a manner that is cognizant of the context within which decision-makers function and the constraints they face in managing their climate-sensitive resources.

RISA teams are comprised of researchers from the physical, natural, engineering and social sciences who work together and partner with stakeholders in a region to determine how climate impacts key resources and how climate information could aid in decision making and planning for those stakeholders. This effort often includes analyses of adaptation options in the face of a varying and changing climate.

Example topics covered by the RISA program include:

—Agriculture

—Wild land Fire

—Water Resources

—Drought Planning

—Fisheries

—Public Health

—Tropical Cyclone Preparedness

Topics covered by individual RISAs depend on regional interests.

Overview

As defined here, assessments raise questions and express judgments on the reliability of knowledge about linkages and projections at the climate-environment-society interface and on the robustness of the data. For example, what are the "critical" issues and how are they identified? What is known and what do we need to know? How do these relationships change over time? Do we know them well enough for effective decision-making? How can social and economic benefits be maximized? This problem-focused orientation has the added impetus of identifying alternative decision pathways and the consequences of those decisions.

New knowledge, new problems and opportunities continuously arise as events unfold. Integrated scientific assessments constitute the sum of efforts to (1) characterize the state of knowledge of climate variations and changes at appropriate scales of interest, (2) identify knowledge gaps and linkages in selected climate-environment-society interactions, and (3) provide an informed basis for a) responding to climate-related risks, and for b) establishing priorities in basic research investments to meet these needs. To achieve the goals of meeting these evolving needs, assessments must be forward looking and anticipatory, and broad enough to evaluate the potential for scientific surprises.

The "regional scale" offers a useful organizational unit on which to coordinate and evaluate research cognizant of socio-economic needs and geophysical and jurisdictional boundaries. Assessment of critical climate-sensitive issues, in this setting, is the iterative process of integrating interdisciplinary knowledge and experience about risks and vulnerabilities in a region commensurate with the design and support of effective responses.

The Integrated Sciences component informs the assessment function by focusing ongoing research on (1) linkages between critical components of physical and natural systems (e.g. climate-fisheries interactions), (2) linkages between climate and social or economic activities (e.g. climate and energy production) and relevant variations and changes in these systems, and (3) linkages between this integrated knowledge and decision processes and/or natural resources management objectives. RISA projects do not advocate one set of policy options over another but seek to evaluate the implications of different choices under varying and changing climate conditions.

RISA teams conduct research, assessments (e.g., white papers, newsletters and/or seasonal outlooks) and stakeholder interactions (e.g., workshops, focus groups, extension activities) and therefore act as a bridge for bringing climate impacts information to decision makers.

Background Information on the current RISA program and teams:

1. The RISA brochure, a publication from existing RISA research teams, provides a good program overview, details the foci of the current RISA teams, explains the research methodology, and describes key topics for each region. The brochure can be found at: (http://www.climate.noaa.gov/index.jsp?pg=./cpo_pa/cpo_pa_index.jsp&pa=risa&sub=5)

2. General information on the RISA program and links to current RISA team web sites can be found on the main website for this program. (http://www.climate.noaa.gov/cpo_pa/risa/)

3. Other relevant resources:

    1. Regional Climate Centers: http://www.ncdc.noaa.gov/oa/climate/regionalclimatecenters.html

2. NWS Climate Services: http://www.nws.noaa.gov/organization.php#hq;

3. State Climatologists
http://www.ncdc.noaa.gov/oa/climate/aasc.html

4. U.S. Climate Change Science Program (CCSP) Strategic Plan
(http://www.climatescience.gov/Library/stratplan2003/final/default.htm)

5. NOAA Climate Transition Program (NCTP)
(http://www.climate.noaa.gov/cpo_pa/nctp/)

6. Sector Applications Research Program (SARP)
(http://www.climate.noaa.gov/cpo_pa/sarp/)

FY2007 Solicitation

For fiscal year 2007, the RISA program is soliciting proposals to support a single RISA project focused on the southwestern U.S., including Arizona and New Mexico. The project award can be up to five years in duration.

NOAA will conduct a peer review process to select the best integrated science, assessment, and outreach effort for the region. Site visits may be included as part of the peer review process. The proposal being offered funding from the fiscal year 2007 review process will be announced as soon as it has been vetted through the grant appropriation process. Depending on Congressional appropriations, NOAA plans to have funding on the order of up to $750-770K per year available for this southwestern RISA.

Through its RISA program, NOAA has been investing in an integrated sciences and assessments effort focused on the region of Arizona and New Mexico. NOAA efforts to date include working with stakeholders on a number of socioeconomic issues that are climate-sensitive and of critical importance to public policy and/or decision making within the region. Thus, proposed projects should build on progress already achieved by integrated climate-society research and assessments projects in the region in terms of working with stakeholders and advancing regional climate impacts science.

The proposal should address how the team intends to address research on the impacts of climate variability and change on the social, ecological, and/or economic systems of the region. Teams are encouraged to bring climate impacts science to important public policy issues of the region (e.g., population growth, development, urban-rural interface issues, rural livelihoods, urban growth, marginalized populations, U.S.-Mexico border issues, drought planning, etc.).

Place-based research is a key component of the RISA research methodology. NOAA encourages prospective proposals to include partners from the southwestern U.S., including Arizona and New Mexico. Applicants should also show how your research

could potentially contribute to emerging NOAA Climate Services in the region. (See sources listed under background information above.) In addition to the National Weather Service (NWS) offices, NOAA also invests in and collaborates with the Regional Climate Centers (RCCs). Proposed linkages to the Western RCC should be addressed in the proposal. Research teams need not be from only one institution. Applicants are encouraged to plan for multi-institutional partnerships over the five-year period. Partners could include other universities, NGOs, U.S. federal agencies, state and local agencies, native or tribal organizations, and the private sector.

By supporting a RISA and leveraging activities from the Regional Climate Centers and NWS regional climate services program, NOAA hopes to accelerate decision support research and transition experimental tools into resource management and public and private sector planning. NOAA's Climate Transition Program (NCTP) is one program designed to foster this transition.

Integration and management of the team and its various components are critical to the success of a RISA. In more established RISA regions such as this one for the southwest, a core office with a full-time program manager is strongly advised. The core office and associated program manager serve an important role in developing mechanisms for and ensuring the integration of research elements and ensuring the role of stakeholder activities in influencing the direction of the research. The latter is of paramount importance for ensuring a successful RISA. Plans for engaging the stakeholder community should be clearly spelled out, and the core office could play a significant role here as well. Moreover, RISAs are implemented as cooperative agreements with NOAA and thus some amount of regular interaction between the RISA team and NOAA is expected. NOAA is particularly interested in what the NOAA Climate Program as a whole can learn from the RISAs in terms of stakeholder feedback to help guide observations and research planning, NOAA Climate Prediction Center products, and NOAA Climate Services as a whole.

Contact information

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